

REMARKS/ARGUMENTS

Applicants have studied the final Office Action dated January 22, 2008 and have made amendments to the claims. It is submitted that the application, as amended, is in condition for allowance. In the election filed on February 27, 2007, claims 1-66 and 83-87 were pending. By virtue of the instant Amendment, claims 1-66 and 83-89 are pending. Claims 1, 5, 12, 15, 20, 28-30, 45, 49, 51, 55-57, and 66 are amended and claims 88 and 89 are added. Reconsideration and allowance of the pending claims in view of the above amendments and the following remarks is respectfully requested. The Applicants would also like to thank the Examiner for his time in the telephone interviews of February 6 and 12, 2008.

In the Office Action, the Examiner:

- (1-2) rejected claims 39 and 60 under 35 U.S.C. § 102(e) as being anticipated by Biggs et al. (U.S. Pat. No. 6,599,311);
- (3-4) rejected claims 1-10, 12-16, 18, 20-25, 27-36, 38, 55-57, 66, 83-85, and 87 under 35 U.S.C. § 103(a) as being unpatentable over Meeker (U.S. Pat. No. 2,108,206) in view of Ley (U.S. Pat. No. 5,514,076);
- (5) rejected claims 1, 5, 11, 26, and 37 under 35 U.S.C. § 103(a) as being unpatentable over Schmitt (U.S. Pat. No. 3,754,555) in view of Ley (U.S. Pat. No. 5,514,076);
- (6) rejected claims 39-54, 58, 59, 61-65, and 86 under 35 U.S.C. § 103(a) as being unpatentable over Meeker (U.S. Pat. No. 2,108,206) in view of Ley (U.S. Pat. No. 5,514,076), and further in view of Green (U.S. Pat. No. 5,928,137);
- (7-8) indicated that claims 17 and 19 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims; and
- (9) withdrew the rejection for claim 83 under 35 U.S.C. § 112, 2nd paragraph.

(1-2) Rejection under 35 U.S.C. §102(e) Biggs

As noted above, the Examiner rejected claims 39 and 60 under 35 U.S.C. § 102(e) as being anticipated by Biggs (U.S. Pat. No. 6,599,311). Claim 39 has been amended to overcome the cited prior art. Amended claim 39 recites, *in relevant part*:

In combination with a flexible endoscope having at least one working channel, a tissue retractor for manipulating tissue inside a patient, comprising:

a head connected to the distal end of the body, the head defining at least a portion of a set of curved tracks, each track having a respective arcuate segment; and

flexible needles of a shape memory material having a memory shape including a portion with an arcuate shape, each of the needles being disposed slidably within a respective one of the arcuate segments of the head; and

an actuation device operatively connected to the needles through the body, the actuation device, upon actuation thereof, moving the needles to selectively extend the needles out of the head through the arcuate segments and withdraw the needles into the head through the arcuate segments; and

the body and the retraction device are sized to fit within the working channel of the endoscope. (Underline added by applicants.)

The Applicants believe the amendments to the instant invention overcome the prior art of Biggs. Biggs does not disclose flexible needles that slide within **a set of curved tracks with arcuate segments**. Upon actuation, the instant invention selectively extends and withdraws the needles through the curved tracks with arcuate segments. Although the Examiner thoroughly details the workings of the Biggs invention, Biggs does not disclose needles traveling through a **curved track with an arcuate segment** when moving within the head of the inventive device. Further, Biggs does not disclose a retraction device that is "sized to fit within the working channel of [an] endoscope" as required by claim 39.

For at least these reasons, Applicants respectfully believe claim 39, as amended, overcomes the 102(e) rejection to Biggs and places it in condition for allowance.

Dependent claim 60 is also believed to be patentable because it ultimately depends upon claim 39.

(3-4) Rejection under 35 U.S.C. § 103(a) Meeker in view of Ley

As noted above, the Examiner rejected claims 1-10, 12-16, 18, 20-25, 27-36, 38, 55-57, 66, 83-85, and 87 under 35 U.S.C. § 103(a) as being obvious over Meeker (U.S. Pat. No. 2,108,206) in view of Ley (U.S. Pat. No. 5,514,076)¹. Independent claims 1 and 66 have been amended to distinguish and to even more clearly define the present invention over Meeker, whether it is taken alone or in view of Ley. Support for the changes is found in Figs. 7 and 8 of the specification of the instant application, for example. No new matter has been added.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Amended independent claim 1 recites, *in relevant part*, a retractor for manipulating an object, including:

a head connected to a distal end of a body, the head defining at least a portion of a set of curved tracks, each track having a respective arcuate segment;

flexible needles of a shape memory material having a memory shape including a portion with an arcuate shape, each of the needles being disposed slidably within a respective one of the arcuate segments; and

an actuation device operatively connected to the needles through the body, the actuation device, upon actuation thereof, moving the needles to selectively extend the needles out of the head through the arcuate segments and withdraw the needles into the head through the arcuate segments. (Underline added by applicants.)

Amended independent claim 66 recites, *in relevant part*, a tissue retractor, including:

a head connected to the distal end of a body, the head defining two opposing openings and at least a portion of a set of curved tracks, each track having a respective arcuate segment;

¹ Applicants make no statement as to whether such a combination is even proper.

flexible needles of a shape memory material having a memory shape including a portion with an arcuate shape, each of the needles being disposed slidably within a respective one of the arcuate segments; and

a one-handed actuation device operatively connected to the needles through the body, the actuation device, upon actuation thereof, moving the needles to selectively extend the needles out of the head through the arcuate segments and withdraw the needles into the head through the arcuate segments. (Underline added by applicants.)

Meeker discloses an instrument including a retraction device for manipulating or grasping an object with teeth. As shown in Fig. 4 of Meeker, the teeth enter and exit through an opening of the outer surface of the instrument. As set forth in Meeker at page 2, lines 9-18, this opening merely provides a gap in which the teeth can pass. The Examiner combines Meeker with Ley, but Ley merely discloses a surgical retractor used to pull away anatomical structures following an incision. See Ley at col. 1, lines 5-7. Nowhere do either Meeker or Ley suggest:

a head defining at least a portion of a set of curved tracks, each track having a respective arcuate segment; **OR**

flexible needles of a shape memory material including a portion with an arcuate shape with each of the needles being disposed slidably within a respective one of the arcuate segments; **OR**

an actuation device, upon actuation thereof, moving the needles to selectively extend the needles out of the head through the arcuate segments and withdraw the needles into the head through the arcuate segments.

Simply put, claims 1 and 66, as amended, disclose a head containing **curved tracks with arcuate segments** and **needles that slide through the arcuate segments of the curved tracks** while extending and retracting through the head of the instant invention. Neither Meeker nor Ley disclose needles traveling through curved tracks with arcuate segments. The Meeker configuration does not even include a head wherein needles could reside when extending and retracting. The teeth are simply actuated without traveling through a head. As shown in Figs. 7 and 8 of the instant invention, in contrast, the needles travel through curved tracks with arcuate segments.

It is accordingly believed to be clear that Meeker, whether taken alone or in combination with Ley, neither shows nor suggests the features of independent claims 1 or 66. Claims 1 and 66 are, therefore, believed to be patentable over the prior art. The rejected dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 1 or claim 66.

(5) Rejection under 35 U.S.C. § 103(a) Schmitt in view of Ley

As noted above, the Examiner rejected claims 1, 5, 11, 26, and 37 under 35 U.S.C. § 103(a) as being unpatentable over Schmitt (U.S. Pat. No. 3,754,555) in view of Ley (U.S. Pat. No. 5,514,076)². As set forth above, independent claim 1 has been amended to distinguish and to even more clearly define the present invention over Schmitt, whether taken alone or in view of Ley. Support for the changes is found in Figs. 7 and 8 of the specification of the instant application, for example. No new matter has been added.

Schmitt discloses an intracardial electrode for use with heart stimulation devices. Schmitt details prongs or barbs attached to a cylinder and extendable through channels in the tip of the head. See Schmitt at col. 2, lines 1-14. As noted above, the instant invention, as amended, recites needles that slide through **curved tracks with arcuate segments** when extended and retracted. Schmitt only refers to a channel in which the barbs or prongs travel. The channels in which the Schmitt barbs/prongs travel are straight, not curved. See Schmitt at Fig. 1. In addition, the barbs or prongs **remain in a straight configuration when extended**. Thus, Schmitt cannot be said to suggest the curved tracks or the curved needles as set forth in claim 1.

The Examiner combines Schmitt with Ley, but Ley merely discloses a surgical retractor used to pull away anatomical structures following an incision. See Ley at col. 1, lines 5-7. Accordingly, it is believed to be clear that Schmitt, whether taken alone or in combination with Ley, neither shows nor suggests the features of claim 1. Claim 1 is,

² Applicants make no statement as to whether such a combination is even proper.

therefore, believed to be patentable over the prior art. The rejected dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

(6) Rejection under 35 U.S.C. § 103(a) Meeker in view of Ley in further view of Green

The Examiner rejected claims 39-54, 58, 59, 61-65, and 86 under 35 U.S.C. § 103(a) as being unpatentable over Meeker (U.S. Pat. No. 2,108,206) in view of Ley (U.S. Pat. No. 5,514,076), and further in view of Green (U.S. Pat. No. 5,928,137)³. As already set forth above, Meeker combined with Ley cannot be said to suggest the invention set forth in claim 1 and 66 and these argument are hereby incorporated herein by reference. Some of the features of claims 1 and 66 are also present in claim 39. Thus, these arguments already set forth the reasons why neither Meeker nor Ley disclose needles traveling through curved tracks with arcuate segments. The Examiner has added Green to this combination because Green discloses a flexible endoscope. Because Green does not overcome the deficiencies of Meeker and Ley to suggest claim 39 (see section (3-4) above), the applicants respectfully believe that claim 39, as amended, cannot be suggested by this addition of Green.

It is accordingly believed to be clear that Meeker, whether taken alone or in any combination with Ley and Green, neither shows nor suggests the features of claim 39. Claim 39 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 39.

(7-8) Allowable Subject Matter

Claims 17 and 19 both ultimately depend upon independent claim 1. As detailed above, the Applicants have amended claim 1 and believe that the rejections of claim 1 should be removed. As a result, applicants do not believe that claims 17 and 19 should be amended as suggested.

³ Applicants make no statement as to whether such a combination is even proper.

(9) Withdrawal of Rejection

The Applicants wish to thank the Examiner for withdrawing the rejection of claim 83 under 35 U.S.C. 112, 2nd paragraph.

CONCLUSION

The remaining cited references have been reviewed and are not believed to affect the patentability of the claims as amended.

In this Response, Applicants have amended certain claims. In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, and are desirable, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

Applicants acknowledge the continuing duty of candor and good faith to disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

Applicants respectfully submit that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. No new matter has been added. It is believed that the application is now in condition for allowance, which allowance is respectfully requested.

The fee of \$100.00 for two (2) new dependent claim(s) in excess of twenty in accordance with Section 1.16 is enclosed herewith.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17


to the Deposit Account of Deposit Account of Mayback & Hoffman, P.A., No. 503,836.

PLEASE CALL the undersigned if that would expedite the prosecution of this application.

Respectfully submitted,

Date: March 21, 2008

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